

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 11:31:22 ON 30 JUL 2007

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 11:31:40 ON 30 JUL 2007

=> s 9001-57-4/rn

L1 1 9001-57-4/RN

=> d

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 9001-57-4 REGISTRY

ED Entered STN: 16 Nov 1984

CN Fructofuranosidase,  $\beta$ - (CA INDEX NAME)

OTHER NAMES:

CN  $\beta$ -D-Fructofuranosidase

CN  $\beta$ -D-Fructofuranoside fructohydrolase

CN  $\beta$ -Fructofuranosidase

CN  $\beta$ -Fructofuranoside fructohydrolase

CN  $\beta$ -Fructopyranosidase

CN  $\beta$ -Fructosidase

CN  $\beta$ -h-Fructosidase

CN  $\beta$ -Invertase

CN E.C. 3.2.1.26

CN exo- $\beta$ -(2,6)-Fructofuranosidase

CN Fructosylinvertase

CN Glucosucrase

CN Invertase

CN Invertin

CN Maxinvert L 1000

CN Saccharase

CN Sucrase

CN Sucrose hydrolase

CN Vacuolar invertase

CN Validase Invertase

MF Unspecified

CI COM, MAN

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA,  
CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, CSCHM, EMBASE, IFICDB,  
IFIPAT, IFIUDB, IPA, MRCK\*, MSDS-OHS, NAPRALERT, PIRA, PROMT, TOXCENTER,  
USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

10032 REFERENCES IN FILE CA (1907 TO DATE)

197 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
10051 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> sel 11 chem  
E1 THROUGH E21 ASSIGNED

=> index bioscience  
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED  
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
2.74	2.95

=> s e1-21

1	FILE ADISCTI
7	FILE ADISINSIGHT
3	FILE ADISNEWS
2234	FILE AGRICOLA
143	FILE ANABSTR
5 FILES SEARCHED...	
44	FILE ANTE
9	FILE AQUALINE
81	FILE AQUASCI
818	FILE BIOENG
10384	FILE BIOSIS
10 FILES SEARCHED...	
1877	FILE BIOTECHABS
1877	FILE BIOTECHDS
1727	FILE BIOTECHNO
13 FILES SEARCHED...	
4903	FILE CABA
15971	FILE CAPLUS
542	FILE CEABA-VTB
11	FILE CIN
160	FILE CONFSCI
87	FILE CROPB
115	FILE CROPU
238	FILE DDFB
197	FILE DDFU
22 FILES SEARCHED...	
4698	FILE DGENE
23 FILES SEARCHED...	
367	FILE DISSABS
238	FILE DRUGB
11	FILE DRUGMONOG2
308	FILE DRUGU
10	FILE EMBAL
3754	FILE EMBASE
2081	FILE ESBIODASE
30 FILES SEARCHED...	
95	FILE FOREGE
643	FILE FROSTI
1578	FILE FSTA
2665	FILE GENBANK
4	FILE HEALSAFE
1282	FILE IFIPAT
37 FILES SEARCHED...	
3	FILE IMSDRUGNEWS
3	FILE IMSPRODUCT

4 FILE IMSRESEARCH  
3 FILE KOSMET  
1818 FILE LIFESCI  
5126 FILE MEDLINE  
53 FILE NTIS  
12 FILE OCEAN  
3486 FILE PASCAL

47 FILES SEARCHED...

6 FILE PHAR  
8 FILE PHARMAML  
12 FILE PHIN  
114 FILE PROMT  
10 FILE PROUSDDR  
4 FILE RDISCLOSURE  
5953 FILE SCISEARCH  
2602 FILE TOXCENTER

59 FILES SEARCHED...

8072 FILE USPATFULL  
1244 FILE USPAT2

61 FILES SEARCHED...

7 FILE VETB  
19 FILE VETU  
29 FILE WATER

64 FILES SEARCHED...

1366 FILE WPIDS  
4 FILE WPIFV  
1366 FILE WPINDEX

61 FILES HAVE ONE OR MORE ANSWERS, 67 FILES SEARCHED IN STNINDEX

L2 QUE (B-D-FRUCTOFURANOSIDASE/BI OR "B-D-FRUCTOFURANOSIDE FRUCTOHY  
DROLASE"/BI OR B-FRUCTOFURANOSIDASE/BI OR "B-FRUCTOFURANOSID  
E FRUCTOHYDROLASE"/BI OR B-FRUCTOPYRANOSIDASE/BI OR B-FRUCTO  
SIDASE/BI OR B-H-FRUCTOSIDASE/BI OR B-INVERTASE/BI OR "E.C.  
3.2.1.26"/BI OR "EXO-B-(2,6)-FRUCTOFURANOSIDASE"/BI OR FRUCTOSYLI  
NVERTASE/BI OR GLUCOSUCRASE/BI OR INVERTASE/BI OR INVERTIN/BI OR "MAXI  
NVERT L 1000"/BI OR SACCHARASE/BI OR SUCRASE/BI OR "SUCROSE HYDROLASE"  
/BI OR "VACUOLAR INVERTASE"/BI OR "VALIDASE INVERTASE"/BI OR 9001-57-4  
/BI)

=> s l2 and (ginger or zingiber?)

5 FILES SEARCHED...

4 FILE BIOSIS  
1 FILE BIOTECHABS

11 FILES SEARCHED...

1 FILE BIOTECHDS

13 FILES SEARCHED...

21 FILE CABA  
7 FILE CAPLUS

23 FILES SEARCHED...

1 FILE DISSABS  
1 FILE EMBASE

30 FILES SEARCHED...

3 FILE FROSTI  
2 FILE FSTA  
5 FILE GENBANK  
5 FILE IFIPAT

42 FILES SEARCHED...

1 FILE MEDLINE

1 FILE PASCAL  
 47 FILES SEARCHED...  
 4 FILE PROMT  
 1 FILE SCISEARCH  
 1 FILE TOXCENTER  
 66 FILE USPATFULL  
 60 FILES SEARCHED...  
 15 FILE USPAT2  
 64 FILES SEARCHED...  
 7 FILE WPIDS  
 7 FILE WPINDEX

20 FILES HAVE ONE OR MORE ANSWERS, 67 FILES SEARCHED IN STNINDEX

L3 QUE L2 AND (GINGER OR ZINGIBER?)

=> s l3 and (peptide or polypeptide or protein)

3 FILES SEARCHED...  
 6 FILES SEARCHED...  
 1 FILE BIOSIS  
 10 FILES SEARCHED...  
 1 FILE BIOTECHABS  
 1 FILE BIOTECHDS  
 13 FILES SEARCHED...  
 3 FILE CABA  
 1 FILE CAPLUS  
 15 FILES SEARCHED...  
 19 FILES SEARCHED...  
 21 FILES SEARCHED...  
 23 FILES SEARCHED...  
 25 FILES SEARCHED...  
 27 FILES SEARCHED...  
 29 FILES SEARCHED...  
 30 FILES SEARCHED...  
 3 FILE GENBANK  
 35 FILES SEARCHED...  
 5 FILE IFIPAT  
 40 FILES SEARCHED...  
 43 FILES SEARCHED...  
 46 FILES SEARCHED...  
 47 FILES SEARCHED...  
 4 FILE PROMT  
 53 FILES SEARCHED...  
 57 FILES SEARCHED...  
 46 FILE USPATFULL  
 60 FILES SEARCHED...  
 10 FILE USPAT2  
 62 FILES SEARCHED...  
 4 FILE WPIDS  
 65 FILES SEARCHED...  
 4 FILE WPINDEX

12 FILES HAVE ONE OR MORE ANSWERS, 67 FILES SEARCHED IN STNINDEX

L4 QUE L3 AND (PEPTIDE OR POLYPEPTIDE OR PROTEIN)

=> d rank

F1 46 USPATFULL  
 F2 10 USPAT2  
 F3 5 IFIPAT

F4	4	PROMT
F5	4	WPIDS
F6	4	WPINDEX
F7	3	CABA
F8	3	GENBANK
F9	1	BIOSIS
F10	1	BIOTECHABS
F11	1	BIOTECHDS
F12	1	CAPLUS

=> file f3-7 f9-12

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

27.72

30.67

FILE 'IFIPAT' ENTERED AT 11:58:39 ON 30 JUL 2007

COPYRIGHT (C) 2007 IFI CLAIMS(R) Patent Services (IFI)

FILE 'PROMT' ENTERED AT 11:58:39 ON 30 JUL 2007

COPYRIGHT (C) 2007 Gale Group. All rights reserved.

FILE 'WPIDS' ENTERED AT 11:58:39 ON 30 JUL 2007

COPYRIGHT (C) 2007 THE THOMSON CORPORATION

FILE 'WPINDEX' ACCESS NOT AUTHORIZED

FILE 'CABA' ENTERED AT 11:58:39 ON 30 JUL 2007

COPYRIGHT (C) 2007 CAB INTERNATIONAL (CABI)

FILE 'BIOSIS' ENTERED AT 11:58:39 ON 30 JUL 2007

Copyright (c) 2007 The Thomson Corporation

FILE 'BIOTECHABS' ACCESS NOT AUTHORIZED

FILE 'BIOTECHDS' ENTERED AT 11:58:39 ON 30 JUL 2007

COPYRIGHT (C) 2007 THE THOMSON CORPORATION

FILE 'CAPLUS' ENTERED AT 11:58:39 ON 30 JUL 2007

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l4

2 FILES SEARCHED...

4 FILES SEARCHED...

6 FILES SEARCHED...

L5 19 L4

=> dup rem l5

PROCESSING COMPLETED FOR L5

L6 13 DUP REM L5 (6 DUPLICATES REMOVED)

ANSWERS '1-5' FROM FILE IFIPAT

ANSWERS '6-9' FROM FILE PROMT

ANSWERS '10-12' FROM FILE CABA

ANSWER '13' FROM FILE BIOSIS

=> d bib abs 1-5, 10-13

L6 ANSWER 1 OF 13 IFIPAT COPYRIGHT 2007 IFI on STN DUPLICATE 1

AN 11043036 IFIPAT;IFIUDB;IFICDB Full-text  
 TI PHYTASES, NUCLEIC ACIDS ENCODING THEM AND METHODS OF MAKING AND USING THEM  
 INF Barton; Nelson Robert, San Diego, CA, US  
 Baum; William, La Jolla, CA, US  
 Garrett; James B., San Diego, CA, US  
 Gray; Kevin A., San Diego, CA, US  
 Kretz; Keith A., San Marcos, CA, US  
 O'Donoghue; Eileen, San Diego, CA, US  
 Robertson; Dan E., San Diego, CA, US  
 Short; Jay M., Rancho Santa Fe, CA, US  
 Zorner; Paul, Encinitas, CA, US  
 IN Barton Nelson Robert; Baum William; Garrett James B; Gray Kevin A; Kretz Keith A; O'Donoghue Eileen; Robertson Dan E; Short Jay M; Zorner Paul  
 PAF Unassigned  
 PA Unassigned Or Assigned To Individual (68000)  
 PPA Diversa Corp (Probable)  
 AG DIVERSA C/O MOFO S.D., 3811 VALLEY CENTER DRIVE, SUITE 500, SAN DIEGO, CA, 92130, US  
 PI US 2005281792 A1 20051222  
 AI US 2004-933115 20040901  
 RLI US 1999-259214 19990301 CONTINUATION 6110719  
 US 1999-291931 19990413 CONTINUATION-IN-PART 6190897  
 US 1999-318528 19990525 CONTINUATION-IN-PART 6183740  
 US 2000-580515 20000525 CONTINUATION-IN-PART 6720014  
 US 2001-866379 20010524 CONTINUATION-IN-PART 6855365  
 US 1997-910798 19970813 DIVISION 5876997  
 FI US 2005281792 20051222  
 US 6110719  
 US 6190897  
 US 6183740  
 US 6720014  
 US 6855365  
 US 5876997  
 DT Utility; Patent Application - First Publication  
 FS CHEMICAL APPLICATION  
 OS CA 144:47744  
 ED Entered STN: 23 Dec 2005  
 Last Updated on STN: 23 Dec 2005  
 PARN This application is a continuation in part (CIP) of U.S. patent application Ser. No. 09/866,379, filed May 24, 2001, which is a continuation-in-part of U.S. patent application Ser. No. 09/580, 515, filed May 25, 2000, which is a continuation-in-part of U.S. patent application Ser. No. 09/318,528, filed May 25, 1999, which is a continuation-in-part of U.S. patent application Ser. No. 09/291,931, filed Apr. 13, 1999, which is a continuation of U.S. patent application Ser. No. 09/259,214, filed Mar. 1, 1999, which is a divisional of U.S. patent application Ser. No. 08/ 910,798, now U.S. Pat. No. 5,876,997, filed Aug. 13, 1997, all of which are hereby incorporated by reference in their entirety for all purposes.  
 CLMN 39  
 GI 8 Figure(s).  
 FIGS. 1a and 1b show the nucleotide and deduced amino acid sequences an exemplary enzyme of the present invention. Sequencing was performed using a 378 automated DNA sequencer (Applied Biosystems, Inc.).  
 FIGS. 2A and 2B show the pH and temperature profile and stability data for the phytase enzyme of the present invention, as described in detail in Example 6, below.  
 FIG. 3 shows a graph with the results of a thermal tolerance assay between

SEQ ID NO:8 (E. coli appA wild type) and an exemplary phytase of the invention having a sequence as set forth in SEQ ID NO:10 (modified phytase).

FIG. 4 shows a graph with the stability of phytase enzymes under simulated digestibility conditions.

FIG. 5 shows a graph with expression of wild-type and modified phytase (SEQ ID NO:10) in various host cells.

FIG. 6 shows a graph of residual phytase activity in SGF with pepsin.

FIGS. 7A and 7B show the nucleotide sequence of E. coli appA phytase (SEQ ID NO:7, encoding the E. coli appA wild type phytase SEQ ID NO:8).

FIG. 8 shows the amino acid sequence of E. coli appA phytase (SEQ ID NO:8) and an exemplary phytase of the invention having a sequence as set forth in SEQ ID NO:10 (a modified phytase).

OF 13 IFIPAT COPYRIGHT 2007 IFI on STN

DUPLICATE 1

AB In one aspect, the invention provides a purified and modified phytase enzyme from Escherichia coli K12 appA phytase. The enzyme has phytase activity and improved thermal tolerance as compared with the wild-type enzyme. In addition, the enzyme has improved protease stability at low pH. Glycosylation of the modified phytase provided a further improved enzyme having improved thermal tolerance and protease stability. The enzyme can be produced from native or recombinant host cells and can be used to aid in the digestion of phytate where desired. In one aspect, the phytase of the present invention can be used in foodstuffs to improve the feeding value of phytate rich ingredients.

CLMN 39 8 Figure(s).

FIGS. 1a and 1b show the nucleotide and deduced amino acid sequences an exemplary enzyme of the present invention. Sequencing was performed using a 378 automated DNA sequencer (Applied Biosystems, Inc.).

FIGS. 2A and 2B show the pH and temperature profile and stability data for the phytase enzyme of the present invention, as described in detail in Example 6, below.

FIG. 3 shows a graph with the results of a thermal tolerance assay between SEQ ID NO:8 (E. coli appA wild type) and an exemplary phytase of the invention having a sequence as set forth in SEQ ID NO:10 (modified phytase).

FIG. 4 shows a graph with the stability of phytase enzymes under simulated digestibility conditions.

FIG. 5 shows a graph with expression of wild-type and modified phytase (SEQ ID NO:10) in various host cells.

FIG. 6 shows a graph of residual phytase activity in SGF with pepsin.

FIGS. 7A and 7B show the nucleotide sequence of E. coli appA phytase (SEQ ID NO:7, encoding the E. coli appA wild type phytase SEQ ID NO:8).

FIG. 8 shows the amino acid sequence of E. coli appA phytase (SEQ ID NO:8) and an exemplary phytase of the invention having a sequence as set forth in SEQ ID NO:10 (a modified phytase).

L6 ANSWER 2 OF 13 IFIPAT COPYRIGHT 2007 IFI on STN DUPLICATE 2

AN 10746043 IFIPAT;IFIUDB;IFICDB Full-text

TI FOOD BAR FOR TREATING MUSCULOSKELETAL DISORDERS; ANTIARTHRITIC NUTRACEUTICALS; LARGE DAILY DOSAGE OF A GLUCOSAMINE SALT, A PROTEIN, A FLAVOR, A VITAMIN B, C, OR E, AND DIETARY FIBER; IMPROVED JOINT MOBILITY; FAST ABSORBING, NON-STEROIDAL, VASODILATION

INF Barr; Teresa Leigh, Port Townsend, WA, US

Martin; Kenneth A., Maumelle, AR, US

IN Barr Teresa Leigh; Martin Kenneth A

PAF Unassigned

PA Unassigned Or Assigned To Individual (68000)

AG BUSKOP LAW GROUP, P.C., 1717 ST. JAMES PLACE, SUITE 500, HOUSTON, TX, 77056, US

PI US 2004253296 A1 20041216

AI US 2003-725611 20031202  
 RLI US 2002-241542 20020911 CONTINUATION-IN-PART 6660308  
 FI US 2004253296 20041216  
 US 6660308  
 DT Utility; Patent Application - First Publication  
 FS CHEMICAL  
 APPLICATION  
 OS CA 142:43819  
 ED Entered STN: 20 Dec 2004  
 Last Updated on STN: 4 Jan 2007  
 CLMN 32  
 AB The food bar usable for treating arthritic conditions is made of from about 250 mg to about 2500 mg of 2-amino-2-deoxyglucose sulfate, 2-amino-2-deoxyglucose sulfate hydrochloride, n-acetyl 2-amino-2-deoxyglucose sulfate, or combinations thereof; from about 200 mg to about 2000 mg of protein; from about 10 mg to about 8000 mg of a flavoring; from about 100 mg to about 2500 mg of a Vitamin B, Vitamin C, Vitamin E or complexes thereof; and from about 1000 mg to about 9000 mg of a fiber. A method for improving joint mobility in a subject comprising administering to the subject an amount of the food bar involves administering to a subject an amount of the supplement on a regular basis.  
 CLMN 32  
 L6 ANSWER 3 OF 13 IFIPAT COPYRIGHT 2007 IFI on STN DUPLICATE 3  
 AN 10746042 IFIPAT;IFIUDB;IFICDB Full-text  
 TI PERIOPERATIVE MULTIVITAMIN PROTEIN BAR FOR USE IN PREPARING AN INDIVIDUAL FOR FAST SURGICAL RECOVERY; MIXTURE CONTAINING DIGESTION ENZYME, VITAMINS, AMINO ACID  
 INF Barr; Teresa Leigh, Port Townsend, WA, US  
 Martin; Kenneth A., Maumelle, AR, US  
 IN Barr Teresa Leigh; Martin Kenneth A  
 PAF Unassigned  
 PA Unassigned Or Assigned To Individual (68000)  
 AG BUSKOP LAW GROUP, P.C., 1717 ST. JAMES PLACE, SUITE 500, HOUSTON, TX, 77056, US  
 PI US 2004253295 A1 20041216  
 AI US 2003-725609 20031202  
 RLI US 2002-241542 20020911 CONTINUATION-IN-PART 6660308  
 FI US 2004253295 20041216  
 US 6660308  
 US 6900173 20050531  
 DT Utility; Patent Application - First Publication  
 FS CHEMICAL  
 APPLICATION  
 OS CA 142:62697  
 ED Entered STN: 20 Dec 2004  
 Last Updated on STN: 4 Jan 2007  
 CLMN 18  
 AB The perioperative multivitamin protein bar for promoting an anabolic state in a person is made of from about 250 mg to about 2500 mg of a digestive enzyme, such as bromelain, pepsin, amylase, protease, lipase, cellulase, lactase, alpha-g, glucoamylase, invertase, malt diastase, pectinase, xylanase, bromelain, betain, trypsin, or combinations thereof; from about 50 mg to about 2500 mg of an amino acid; from about 200 mg to about 2000 mg of a sea plant; from about 10 mg to about 8000 mg of a flavoring; from about 100 mg to about 2500 mg of Vitamin A, Vitamin B, Vitamin D, Vitamin E, Vitamin K, calcium, complexes thereof, or combinations thereof; and from about 1000 mg to about 9000 mg of a fiber.  
 CLMN 18



L6 ANSWER 4 OF 13 IFIPAT COPYRIGHT 2007 IFI on STN DUPLICATE 4  
 AN 10745974 IFIPAT;IFIUDB;IFICDB Full-text  
 TI PERIOPERATIVE MULTIVITAMIN PROTEIN BEVERAGE AND ADDITIVE FOR  
 USE IN PREPARING AN INDIVIDUAL FOR FAST SURGICAL RECOVERY; MIXTURE OF  
 ENZYMES, AMINO ACIDS, SEAWEED AND DERIVATIVES, FLAVORS, VITAMINS, FIBERS  
 AND FLUIDS, USED FOR PROMOTING METABOLISM  
 INF Barr; Teresa Leigh, Port Townsend, WA, US  
 Martin; Kenneth A., Maumelle, AR, US  
 IN Barr Teresa Leigh; Martin Kenneth A  
 PAF Unassigned  
 PA Unassigned Or Assigned To Individual (68000)  
 AG BUSKOP LAW GROUP, P.C., 1717 ST. JAMES PLACE, SUITE 500, HOUSTON, TX,  
 77056, US  
 PI US 2004253227 A1 20041216  
 AI US 2003-725610 20031202  
 RLI US 2002-241542 20020911 CONTINUATION-IN-PART 6660308  
 FI US 2004253227 20041216  
 US 6660308  
 DT Utility; Patent Application - First Publication  
 FS CHEMICAL  
 APPLICATION  
 OS CA 142:56670  
 ED Entered STN: 20 Dec 2004  
 Last Updated on STN: 4 Jan 2007  
 CLMN 37  
 AB The perioperative multivitamin protein additive for promoting an anabolic  
 state in a person, is made of from about 250 mg to about 2500 mg a digestive  
 enzyme, such as bromelain, pepsin, amylase, protease, lipase, cellulase,  
 lactase, alpha-g, glucoamylase, invertase, malt diastase, pectinase,  
 xylanase, bromelain, betain, and trypsin, or combinations thereof; from about  
 50 mg to about 2500 mg of an amino acid; from about 200 mg to about 2000 mg  
 of a sea plant; from about 10 mg to about 8000 mg of a flavoring; from 100 mg  
 to 2500 mg o Vitamin A, Vitamin B, Vitamin D, Vitamin E, Vitamin K and  
 calcium, complexes thereof, and combinations thereof; and from about 1000 mg  
 to about 9000 mg of a fiber. The perioperative multivitamin protein additive  
 can be added to an ingestible liquid in order to form a perioperative  
 multivitamin protein beverage.  
 CLMN 37

L6 ANSWER 5 OF 13 IFIPAT COPYRIGHT 2007 IFI on STN  
 AN 04247636 IFIPAT;IFIUDB;IFICDB Full-text  
 TI PERIOPERATIVE MULTIVITAMIN PROTEIN BAR FOR USE IN PREPARING AN  
 INDIVIDUAL FOR FAST SURGICAL RECOVERY; MIXTURE CONTAINING DIGESTION  
 ENZYME, VITAMINS, AMINO ACID  
 INF Barr; Teresa Leigh, P.O. Box 1500, Port Townsend, WA, 98368, US  
 Martin; Kenneth A., 8907 Kanis Rd., Suite 330, Little Rock, AR, 72205, US  
 IN Barr Teresa Leigh; Martin Kenneth A  
 PAF Unassigned  
 PA Unassigned Or Assigned To Individual (68000)  
 EXNAM Peselev, Elli  
 AG Buskop Law Group, P.C.  
 Buskop, Wendy  
 PI US 6900173 B2 20050531  
 US 2004253295 A1 20041216  
 AI US 2003-725609 20031202  
 XPD 11 Sep 2022  
 RLI US 2002-241542 20020911 CONTINUATION-IN-PART 6660308  
 FI US 6900173 20050531  
 US 6660308  
 US 2004253295 20041216

DT Utility; Granted Patent - Utility, with Pre-Grant Publication  
FS CHEMICAL  
GRANTED

ED Entered STN: 2 Jun 2005  
Last Updated on STN: 6 Feb 2006

PARN The present application is CIP and claims priority to U.S. patent application Ser. No. 10/241,542 filed on Sep. 11, 2002 and issued as U.S. Pat. No. 6,660,308, on Dec. 9, 2003.

NTE This Patent is subject to a Terminal Disclaimer.

CLMN 16

OF 13 IFIPAT COPYRIGHT 2007 IFI on STN

AB The perioperative multivitamin protein bar for promoting an anabolic state in a person is made of from about 250 mg to about 2500 mg of a digestive enzyme, such as bromelain, pepsin, amylase, protease, lipase, cellulase, lactase, alpha-g, glucoamylase, invertase, malt diastase, pectinase, xylanase, bromelain, betain, trypsin, or combinations thereof; from about 50 mg to about 2500 mg of an amino acid; from about 200 mg to about 2000 mg of a sea plant; from about 10 mg to about 8000 mg of a flavoring; from about 100 mg to about 2500 mg of Vitamin A, Vitamin B, Vitamin D, Vitamin E, Vitamin K, calcium, complexes thereof, or combinations thereof; and from about 1000 mg to about 9000 mg of a fiber.

NTE This Patent is subject to a Terminal Disclaimer.

CLMN 16

L6 ANSWER 10 OF 13 CABA COPYRIGHT 2007 CABI on STN

AN 2001:127833 CABA Full-text

DN 20013038727

TI Effect of cytozyme on vegetative characters and yield of banana cvs. Nendran (AAB) and Karpuravalli (ABB)

AU Vijayalakshmi, K.; Mathan, K. K.

CS Department of Soil Science and Agricultural Chemistry, Tamil Nadu Agricultural University, Coimbatore 641 003, India.

SO International Journal of Tropical Agriculture, (2000) Vol. 18, No. 1, pp. 55-61. 15 ref.

Publisher: Vidya International Publishers. Hisar

ISSN: 0254-8755

CY India

DT Journal

LA English

ED Entered STN: 6 Dec 2001

Last Updated on STN: 6 Dec 2001

AB Cytozyme contains gibberellic acid, IAA, cytokinins and biologically active micronutrients along with enzymes such as diastase [[alpha]-glucosidase], maltase [[alpha]-glucosidase], invertase [[beta]-fructofuranosidase], cellulase, and hydrolysed protein complexes plus hormones. The effect of cytozyme was studied on the growth, yield and quality of banana during 1995-97. The cytozyme treatments were given with the recommended doses of NPK at 6, 12 and 18 kg/ha levels and in combination with foliar spray of cytozyme at 0.1%. The results revealed that application of cytozyme granules @ 18 kg/ha along with 0.1% foliar spray increased the pseudostem height and girth to the highest by 18.3 and 16.0%, and leaf area by 39.5%. The bunch yield of banana cv. Nendran increased by 21.4% over control (31.8 t/ha). Similarly, in the second crop of banana cv. Karpuravalli also a 8.9% increase in girth, a 22.5% increase in leaf area, and a 34.7% increase in yield (36.1 t/ha) over the control was recorded.

L6 ANSWER 11 OF 13 CABA COPYRIGHT 2007 CABI on STN

AN 94:83496 CABA Full-text

DN 19940306561

TI Changes in enzyme activities in organ forming and non-organ forming callus cultures of *Kaempferia galanga* L  
 AU Vincent, K. A.; Bejoy, M.; Kavikishor Hariharan; Hariharan, M.; Hariharan, K.  
 CS Department of Botany, University of Calicut, Calicut 673 635, Kerala, India.  
 SO Phytomorphology, (1992) Vol. 42, No. 3-4, pp. 241-244. 21 ref.  
 ISSN: 0031-9449  
 DT Journal  
 LA English  
 ED Entered STN: 1 Nov 1994  
 Last Updated on STN: 1 Nov 1994  
 AB Total starch, total sugars, reducing sugars, soluble proteins and total phenolic compounds accumulated considerably during organogenesis in callus cultures of *K. galanga*. While there was no difference in the specific activity of amylase, the activities of peroxidase, catalase, IAA-oxidase and invertase [[beta]-fructofuranosidase] were significantly higher in organ-forming callus than in non-organ forming callus. The activity of malate dehydrogenase was higher in non-organ forming callus.

L6 ANSWER 12 OF 13 CABA COPYRIGHT 2007 CABI on STN

AN 84:141780 CABA Full-text

DN 19841302242

TI Biochemical analysis in leaf spot disease of turmeric: some hydrolysing and oxidative enzymes and related chemical metabolites

AU Agarwal, M. L.; Kumar, S.; Goel, A. K.; Tayal, M. S.

CS Dep. Bot., DAV Coll., Muzaffarnagar 251 001, India.

SO Indian Phytopathology, (1982) Vol. 35, No. 3, pp. 438-441. 2 fig. 26 ref.

ISSN: 0367-973X

DT Journal

LA English

ED Entered STN: 1 Nov 1994

Last Updated on STN: 1 Nov 1994

AB *Curcuma longa* leaves infected by *Taphrina maculans* possessed higher levels of total phenols, o-dihydric phenols, IAA, reducing sugars and lower contents of chlorophylls, starch, total sugars, non-reducing sugars and proteins than healthy leaves. Peroxidase, amylase and invertase activities increased with disease development while that of IAA-oxidase and polyphenol oxidase decreased.

L6 ANSWER 13 OF 13 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

AN 1994:166540 BIOSIS Full-text

DN PREV199497179540

TI Changes in enzyme activities in organ forming and non-organ forming callus cultures of *Kaempferia galanga* L.

AU Vincent, K. A.; Bejoy, M.; Kavikishor, P. B.; Hariharan, Molly [Reprint author]

CS Dep. Bot., Univ. Calicut, Calicut-673635 Kerala, India

SO Phytomorphology, (1992 (1993)) Vol. 42, No. 3-4, pp. 241-244. .

CODEN: PHYMAW. ISSN: 0031-9449.

DT Article

LA English

ED Entered STN: 8 Apr 1994

Last Updated on STN: 10 Apr 1994

AB Total starch, total sugars, reducing sugars, soluble proteins and total phenolic compounds accumulated considerably during the organogenesis in callus cultures of *Kaempferia galanga*. While there was no difference in the specific

activity of amylase, other enzyme activities such as peroxidase, catalase, IAA - oxidase and invertase (but not malate dehydrogenase) were significantly higher in the organ - forming (OF) callus than in non-organ forming (NOF) callus.

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

148.44

179.11

STN INTERNATIONAL LOGOFF AT 12:02:07 ON 30 JUL 2007